Improve and maintain 12 Sugar activities

Hello, I'm Dimitris Mylonas, I found out about SugarLabs about 3-4 weeks ago so I'm fairly new, but it's been fun. This is a draft version to get feedback. Feel free to add your comments and thank you for taking the time!

My criteria for choosing activities to contribute

- Potential in pedagogical value and personal interest especially in the case of the 2cars-activity, which was the first sugar activity I tried out
- Being part of the base sugar activities, fructose

My goals for my contributions

- Make activities easier to use and navigate
- Increase the fun factor of activities
- Make the activities easier to maintenance and improvements in the future

Turtleart-activity

- Disable horizontal scrolling when there is no need to, issue #75
- Add a step by step, walkthrough tutorial, issue #49

Chat-activity

- Add Feature: drawing and quoting, issue #17
- Resolve the problem of the bottom side of the screen being cut off
- Improve the chat feature in the Sugar activity by displaying the sender's name above each message with smaller font, similar to Messenger

2cars-activity

- There is already a fork that has ported it to python3
- Add mouse input for switching lanes, currently you can only change lanes with arrows
- Revise the instructions to reflect the new input methods (keyboard and mouse)
- Make the activity adapt its layout and elements to fit various window sizes
- Add collaboration to enable two users to play with each other

Chess activity

- To make it more accessible, it would be essential to include in-game instructions for each piece's movement
- Adding a with a feature that shows possible moves when a piece is clicked on
- Adding an audio cue for each piece movement would enhance the overall experience of the game.

TextDungeon

- Introduce new stories or collections of stories categorized by difficulty levels based on word complexity, tailored to accommodate various vocabulary skill levels of different student ages. I would like to make at least one story for each difficulty (Rookie-Explorer (Beginner) / Treasure Hunter (Intermediate) / Quest Master (Pro))
- Increase font size of the activity's text
- For the current story and for each new story I add I want to bundle it with a background to give each story a unique feel and personality depending on the plot
- Add background music to again increase the uniqueness and depth of each story

Browse-activity

- Resolving issue with pdf files, it's not an open issue, but it came up when I was configuring the middle-clicking functionality

Flappy/Flappy-birds

- Merge activities into one, since they are almost identical, issue #30
- Update Readme on GitHub, flappy-birds' instructions on how to run are outdated and flappy doesn't have a meaningful description

Jukebox-activity

- Add collaboration for sharing playlist items, issue #22

Lemonade Stand

- Move documentation to GitHub, issue #7
- Add in-game instructions/tutorial
- Make window adjust to screen size, issue #4

Cell Game

- Make window adjust to screen size, issue #3
- Add mouse support, issue #4
- "Press any key to continue "flashes too fast for a child to read
- Add an in-game tutorial, ideally image based.

Calucalate-activity

- Make window adjust to screen size, issue #43, issue #66

Solar System activity

- Add fun short explanations/stories about the planets, I believe stories are an incredible tool for captivating children's interest and imagination
  - o E.g., Vivi the Venusian, In our very own solar system, there's a bright, shining planet called Venus. There you can find a curious little alien named Vivi the Venusian living among the thick, yellow clouds. One day, Vivi decided to discover more about her planet and share her findings with her Earthling friends. She discovered that Venus was incredibly hot, with temperatures that could melt lead! She also found out that Venus had a day longer than its year, which she thought was very strange. Vivi also learned about Venus's unusual rain, instead of water, it rained acid! Vivi communicated her findings to her Earthling friends, who were amazed by the exciting stories of Venus. From then on, Vivi and her Earthling friends share their knowledge of the solar system, inspiring each other to explore the universe's mysteries!
- Add explanation(s) about how the workings of our solar system, using simple analogies
  - o E.g., Our solar system is like a big cosmic family. The sun is like a loving parent in the center, giving warmth and light to everyone. Now imagine eight siblings called planets,

spinning around the sun like they're playing a game of cosmic hide and seek. The closest sibling to the sun is Mercury, followed by Venus, Earth (where we live), Mars, Jupiter, Saturn, Uranus, and Neptune. Some planets have cool features, like Jupiter's giant red spot (a massive storm) and Saturn's awesome rings made of ice and rocks. These planets are always moving in a big circle, called an orbit, around the sun while spinning like tops. This dance party lasts billions of years! Don't forget the little guys - moons, asteroids, and comets - they join in the fun, too! That's our solar system, an incredible spinning space adventure!

Additionally in the activities that need it, case point, the 2cars-activity I'll refactor the code by extracting methods, renaming variables, simplifying conditional expressions and adding relevant comments as needed, in order to streamline future maintenance and enhancements.